

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

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PCT

NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of Mailing
(day/month/year)

30 APR 1998

Applicant's or agent's file reference
42390.P3314

IMPORTANT NOTIFICATION

International application No.
PCT/US96/20516

International filing date (day/month/year)
17 DECEMBER 1996

Priority Date (day/month/year)
19 DECEMBER 1995

Applicant
INTEL CORPORATION

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

RECEIVED

MAY 04 1998

NO DOCKETING
REQUIRED

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PATENT COOPERATION TREATY


PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 42390.P3314	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US96/20516	International filing date (day/month/year) 17 DECEMBER 1996	Priority date (day/month/year) 19 DECEMBER 1995
International Patent Classification (IPC) or national classification and IPC IPC(6): G06F 7/22 and US Cl.: 395/569, 570, 378, 678		
Applicant INTEL CORPORATION		

1.	This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2.	This REPORT consists of a total of <u>4</u> sheets. <input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of <u>0</u> sheets.
3.	This report contains indications relating to the following items: I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of report with regard to novelty, inventive step or industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 03 JULY 1997	Date of completion of this report 07 APRIL 1998
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer  for Parshotam S. Lall Telephone No. (703) 305-9715

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US96/20516

1. Basis of the report

1. This report has been drawn on the basis of (Substantive sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments):

☒ the international application as originally filed.

☒ the description, pages 1-130, as originally filed.

pages NONE, filed with the demand.

pages NONE, filed with the letter of _____.

pages _____, filed with the letter of _____.

☒ the claims, Nos. 1-16, as originally filed.

Nos. NONE, as amended under Article 19.

Nos. NONE, filed with the demand.

Nos. NONE, filed with the letter of _____.

Nos. _____, filed with the letter of _____.

☒ the drawings, sheets/fig 1-20, as originally filed.

sheets/fig NONE, filed with the demand.

sheets/fig NONE, filed with the letter of _____.

sheets/fig _____, filed with the letter of _____.

2. The amendments have resulted in the cancellation of:

☒ the description, pages NONE.

☒ the claims, Nos. NONE.

☒ the drawings, sheets/fig NONE.

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box Additional observations below (Rule 70.2(c)).

4. Additional observations, if necessary:

NONE

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US96/20516

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. STATEMENT

Novelty (N)	Claims	<u>1-16</u>	YES
	Claims	<u>NONE</u>	NO
Inventive Step (IS)	Claims	<u>NONE</u>	YES
	Claims	<u>1-16</u>	NO
Industrial Applicability (IA)	Claims	<u>1-16</u>	YES
	Claims	<u>NONE</u>	NO

2. CITATIONS AND EXPLANATIONS

Claims 1-16 lack an inventive step under PCT Article 33(3) as being obvious over Sharangpani (US. patent 5,522,051).

Sharangpani discloses the invention substantially as claimed [see Figs. 1-7c].

Taking claim 1 as an exemplary claim, the reference discloses a system comprising:

a plurality of tags associated with a first storage area indicating that locations in first storage area are either empty or non-empty responsive to the execution of floating point instructions which modify data contained in the first storage area [see col. 8, lines 19-50];

a first circuit coupled to the plurality of tags, setting the plurality of tags to a non-empty state responsive to receipt of first instruction which specifies an operation upon packed data stored in the first storage area, the setting of the plurality of tags indicating execution of instructions which operate upon the packed data [see col. 8, lines 19-50];

a second circuit coupled to the plurality of tags, setting only the plurality of tags to an empty state responsive to receipt of a second instruction which indicates termination of the execution of the instructions which operate upon the packed data stored in the first storage area [see col. 8, lines 32-50].

Sharangpani does not specifically mentions that packed data is being operated upon, however the type of data being stored or operated upon is a matter of engineering choice.

As to claim 2, Sharangpani discloses:

a third circuit for clearing a top of stack pointer responsive to receipt of the first instruction or the second instruction [see col. 7, line 54 to col. 8, line 4].

As to claim 3, Sharangpani discloses:

the first storage includes a mantissa [Significand] portion and a corresponding exponent portion, and the packed data is packed in a mantissa portion of the first storage area [see fig. 4, unit 32 and col. 7, lines 36-53].

(Continued on Supplemental Sheet.)

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

V. 2. REASONED STATEMENTS - CITATIONS AND EXPLANATIONS (Continued):

As to claim 4, Sharangpani discloses:

a circuit for setting the corresponding exponent portion to a predetermined value upon performing the operation upon packed data stored in the first storage area [see fig. 4, unit 32 and col. 7, lines 36-53].

As to claim 5, Sharangpani discloses:

the plurality of tags includes two bits [see col. 8, lines 41-50].

As to claim 6, Sharangpani discloses:

the setting of only the plurality of tags to an empty state includes setting the two bits to a set state [see col. 8, line 45-46].

As to claim 7, Sharangpani discloses:

the setting of only the plurality of tags to a non-empty state includes setting both of the two bits to other than set state [see col. 8, line 41-42].

As to claim 8, it does not teach or define above the invention claimed in claim 1, and is therefore lacks inventive step under Sharangpani for the same reasons set fourth in claim 1, supra.

As to claim 9, it does not teach or define above the invention claimed in claim 1, and is therefore lacks inventive step under Sharangpani for the same reasons set fourth in claim 1, supra.

As to claim 10, it does not teach or define above the invention claimed in claim 2, and is therefore lacks inventive step under Sharangpani for the same reasons set fourth in claim 2, supra.

As to claims 11-12, they do not teach or define above the invention claimed in claim 3, and are therefore lacks inventive step under Sharangpani for the same reasons set fourth in claim 3, supra.

As to claim 13, it does not teach or define above the invention claimed in claim 4, and is therefore lacks inventive step under Sharangpani for the same reasons set fourth in claim 4, supra.

As to claim 14, it does not teach or define above the invention claimed in claim 5, and is therefore lacks inventive step under Sharangpani for the same reasons set fourth in claim 5, supra.

As to claim 15, it does not teach or define above the invention claimed in claim 6, and is therefore lacks inventive step under Sharangpani for the same reasons set fourth in claim 6, supra.

As to claim 16, it does not teach or define above the invention claimed in claim 7, and is therefore lacks inventive step under Sharangpani for the same reasons set fourth in claim 7, supra.

----- NEW CITATIONS -----
NONE